

have been tested in animals by chronic smoke inhalation studies and have not been scientifically demonstrated to be cause lung cancer.

Furthermore, in response to environmental and health concerns, many governments extensively regulate pesticide use. These regulations are designed to assure that pesticide residues present in food products and other consumables occur at levels which will not result in harm to the consumer.

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other words, 99.9% of the pesticide chemicals consumed through the diet are naturally occurring.<sup>1</sup>

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PESTICIDES  
CLAIMS/RESPONSES

CLAIM: Cigarette manufacturers use tobacco which contains pesticides that are harmful to smokers.

RESPONSE: Pesticides are widely used in the production of farm crops throughout the world, because these chemicals help control insects, weeds, and other pests that cause substantial losses. Consequently, small amounts of residues from these substances are found in virtually all the food we eat. Pesticides used in growing these food commodities are also used in growing tobacco.

There are no persuasive scientific studies which establish that the small amounts of residues that have been detected in tobacco products are a cause of disease in smokers.<sup>1-3</sup> In fact, after decades of research, inhalation studies in which animals have been exposed to fresh whole tobacco smoke have failed to provide experimental proof that smoking causes lung cancer.<sup>4</sup> The reference or model cigarettes used in those animal studies were made from the same tobacco used to make commercial cigarettes which would have contained residues of pesticides also found in food and other consumer products. In effect, then, many pesticides commonly used on tobacco and other crops

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#### REFERENCES

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CLAIM: Pesticides must be harmful, regardless of how little there is in a product. Why else would the media pay so much attention to reports that there are pesticides in food?

RESPONSE: Technological developments have made it possible to detect extremely small residues of pesticides that were virtually undetectable only a few years ago. However, simply because it is possible to detect small amounts of a substance in, for example, a food product does not establish that it is hazardous. The mechanism that makes pesticides effective in controlling various pests and weeds does not automatically translate into health concerns or an adverse impact on the environment. Orchestrated events such as the "Alar scare" in the U.S. suggest that the media may report the news before all scientific facts have been considered.

In this regard, it is worth considering that nature is the major source of plant defense chemicals. Grain, fruit, and vegetable plants have protective mechanisms that produce chemical defenses against infestation by insects, fungi and animal predators. It has been estimated, for example, that an average American may consume about 10,000 times more natural "pesticides" per day than synthetic or man-made pesticide residues. In

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